Unit 4 Notes 2 F.BF.1

I can find the composition of two or more functions.

Composition of functions:

Recall:

If $f(x) = x^2 - 2x + 7$

then $f(5) =$

In other words:

For a composition,

Let g(x) = 3x -4 and f(x) = x^2 – 2x + 7

Find *g(f(5))* Find *f(g(5))*

More Examples: $f(x) = -8x + 2$ $g(x) = 2x^2 - 4$ $h(x) = \frac{5x - 2}{4}$

1. $f(h(6))$ 2. $h(f(6))$

3. $g(f(-2))$ 4. $f(g(-2))$

Unit 4 Notes 2 F.BF.1

I can find the composition of two or more functions.

Same idea if there is no specific input value.

$f(x) = 4x$ $g(x) = 2x - 4$ $h(x) = x^2 + 1$ $j(x) = \frac{1}{2}x + 2$

1. $f(g(x))$

2. $g(f(x))$

3. $g(h(x))$

4. $h(g(x))$

5. $g(j(x))$

6. $j(g(x))$

7. $g(g(x))$

8. f(g(x – 3)